

(No Model.)

B. F. WRIGHT.
CASH REGISTER.

No. 482,956.

Patented Sept. 20, 1892.

FIG. 1.

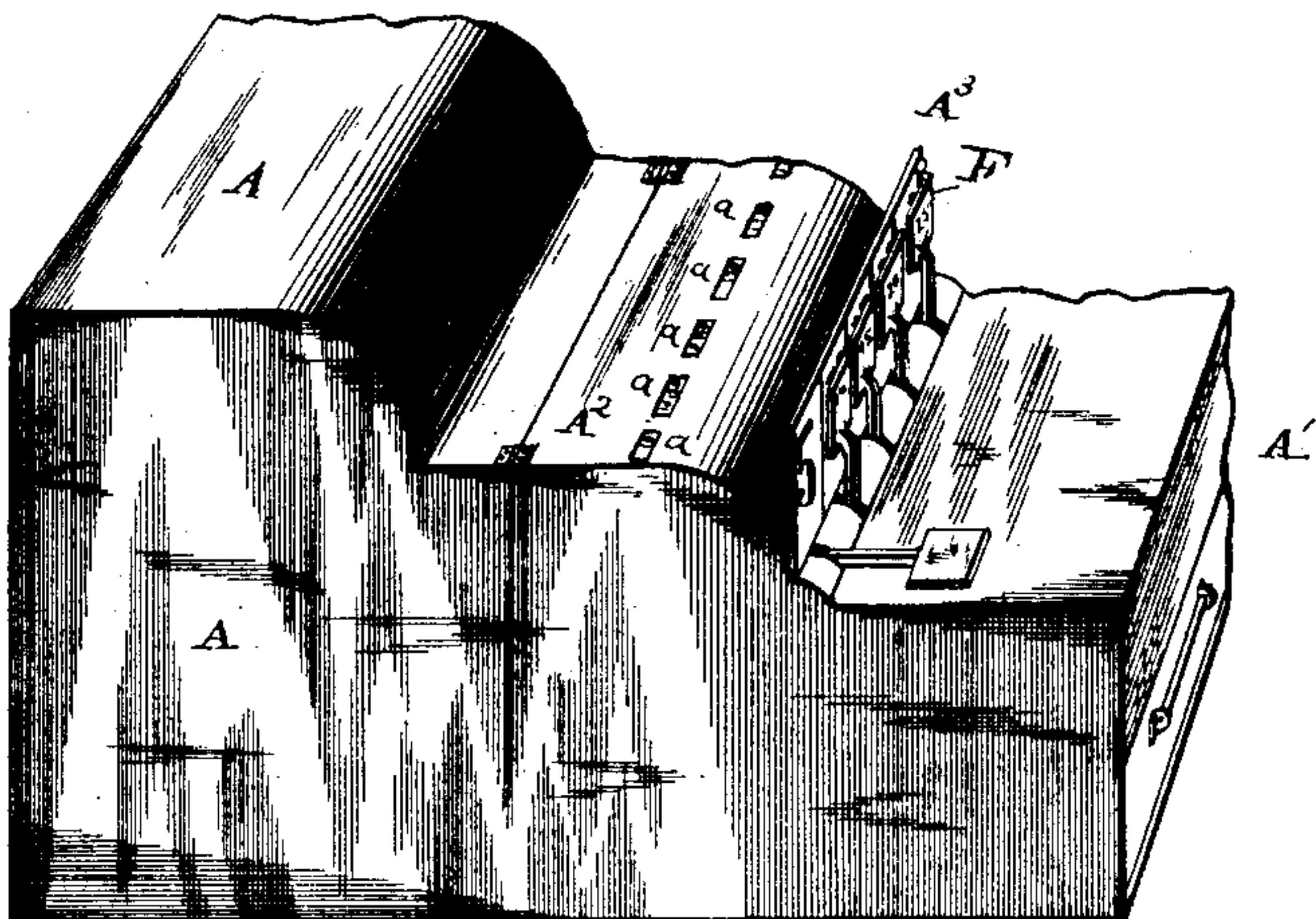


FIG. 2.

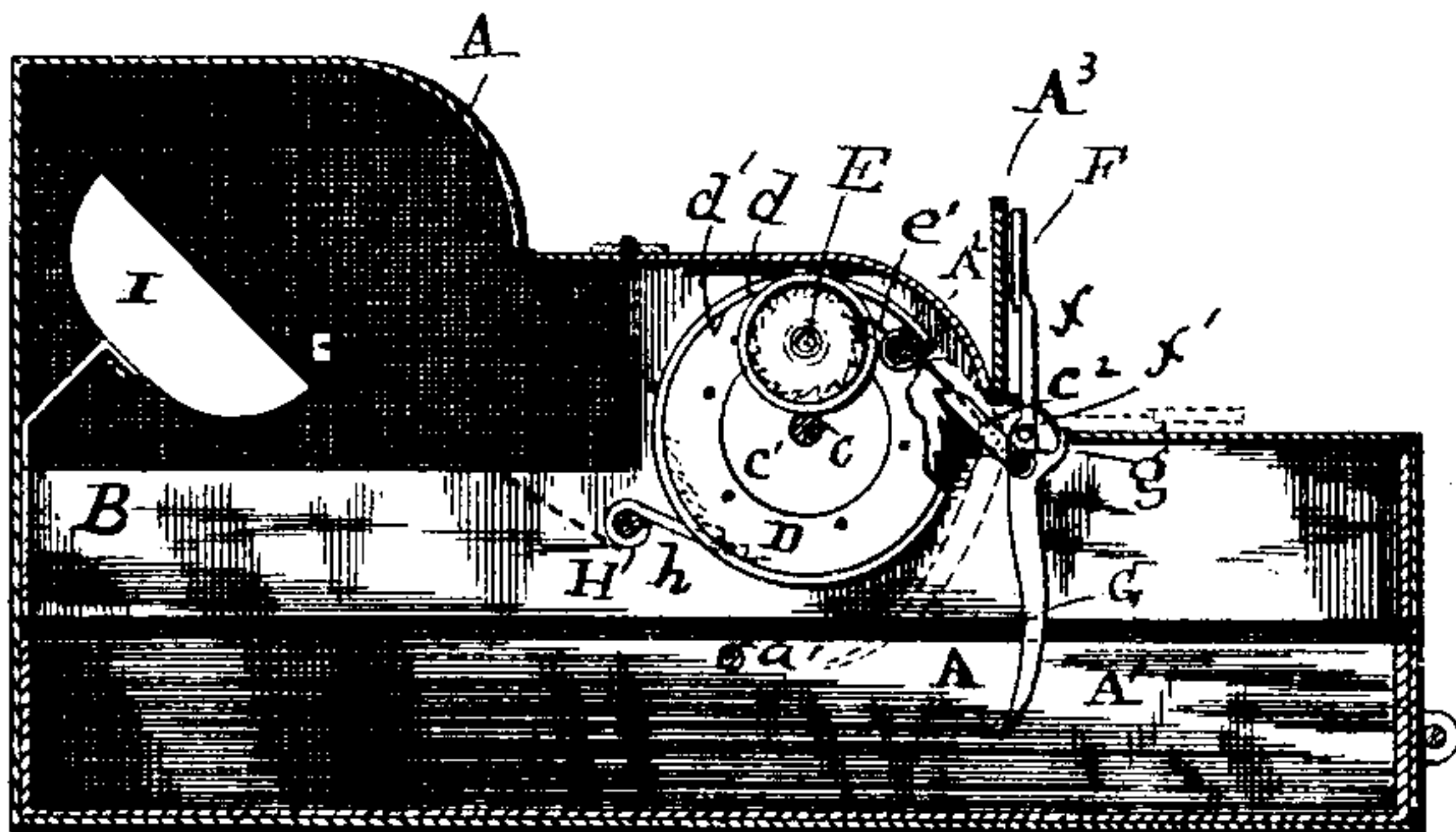


FIG. 3.

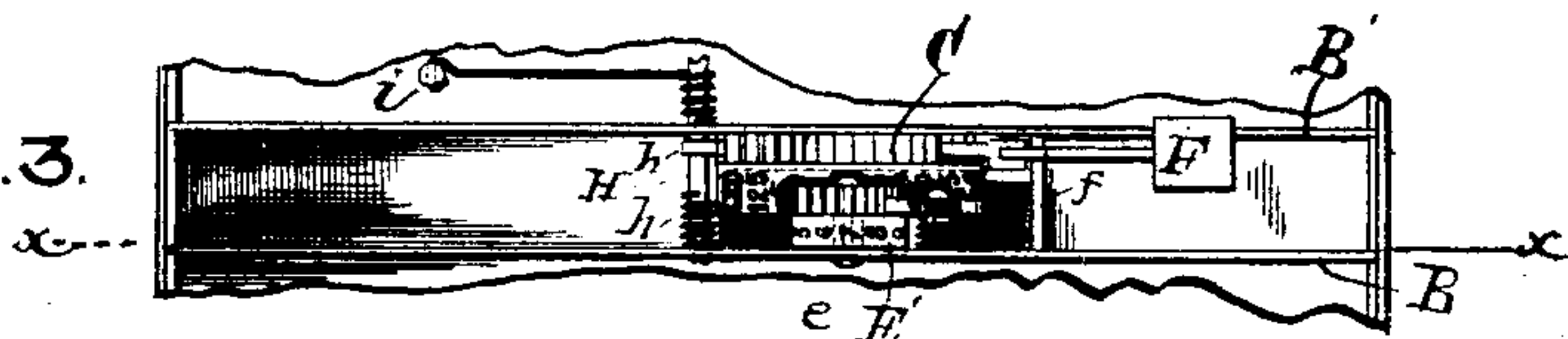


FIG. 4.

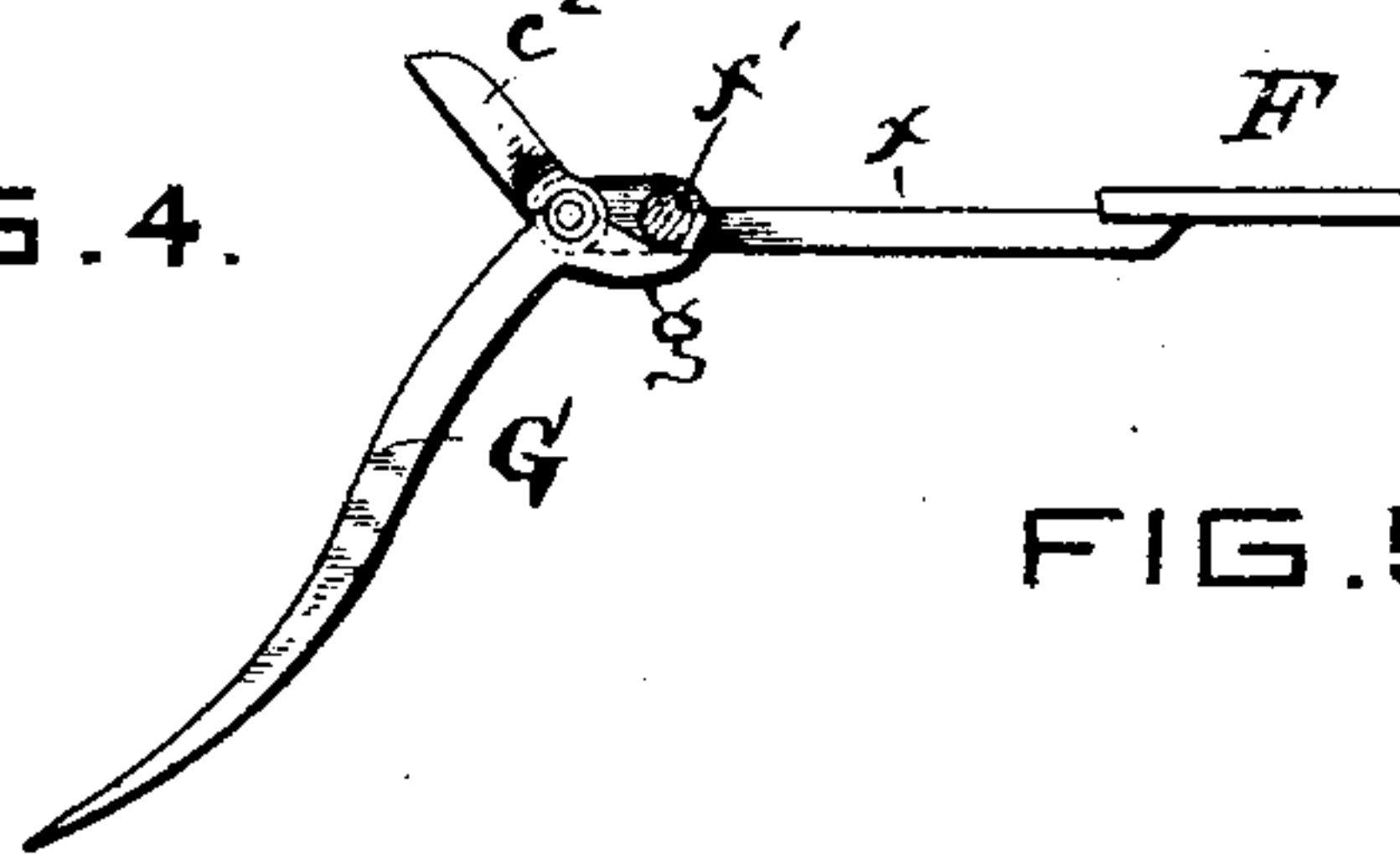
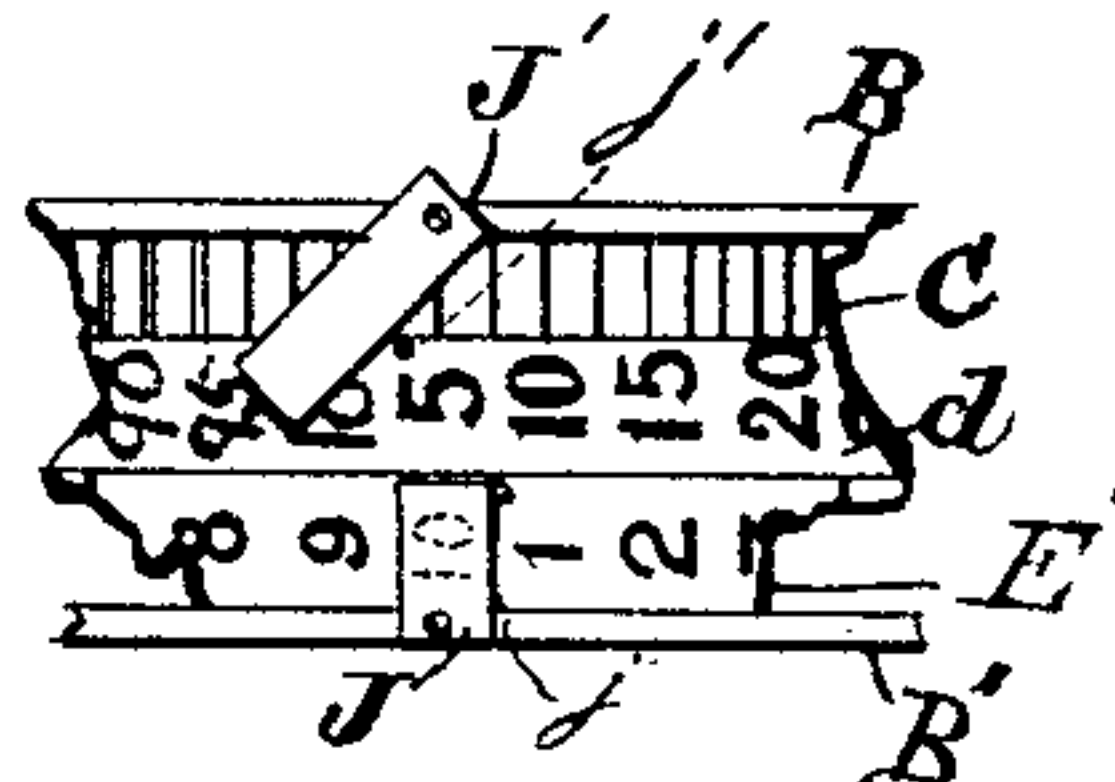


FIG. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

BENJAMIN F. WRIGHT, OF HARTWELL, ASSIGNOR OF TWO-THIRDS TO AMOS G. WOOLLEY AND EDGAR M. WOOLLEY, OF CINCINNATI, OHIO.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 482,956, dated September 20, 1892.

Application filed May 16, 1892. Serial No. 433,250. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. WRIGHT, a citizen of the United States, and a resident of Hartwell, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cash-Registers, of which the following is a specification.

The object of my invention is to provide a simple and inexpensive device for the use of retail-dealers for the purpose of accurately registering the amount of cash received from sales and exposing to the purchaser or others present when the sale is made the amount of the purchase, in order that a check may be kept of each sale made and the aggregate amount of the sales registered for any given time.

The invention consists in the peculiar combination and arrangement of the parts illustrated in the accompanying drawings, in connection with which the invention will be first fully described, and then particularly referred to and pointed out in the claims.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is a perspective view of the device with one of the blinds thrown down. Fig. 2 is a longitudinal vertical sectional view taken alongside of the register through line $x x$ of Fig. 3, part of one of the register-wheels being shown broken away. Fig. 3 is a plan view of part of the case with top of the case removed and a part of the rim of the units-registering wheel broken away. Fig. 4 is a side elevation, upon an enlarged scale, of the pivoted shutter, the pawl which engages the register, and the lever for closing the shutter over the number. Fig. 5 is a detail plan view, upon an enlarged scale, of the register-wheel.

The lower part of the case A is provided with a cash-drawer A', and the upper part has a hinged door A², covering the register-wheels. The cover has openings a over the wheels, which openings are closed by mica or other transparent material to expose the numbers. Within the case above the drawer are arranged any suitable number of registering devices. One of these is shown in side ele-

vation, Fig. 2, and in plan view, Fig. 3. As all of these devices are alike the description of one will answer for all.

The registering devices are supported between parallel side plates B B', which are secured to the front and rear ends of the case. C is a ratchet-wheel, which is journaled upon a shaft or rod c , which passes through the side pieces B B'. Upon one side of the ratchet-wheel is a hub c' . D is a ring, which fits over the hub c' , to which it is secured by rivets or screws. The ring D has a rim d , upon the periphery of which is painted or impressed the unit-numerals "5," "10," "15," &c., up to "100." A smaller ratchet-wheel E is journaled upon a stud e , which is secured in the side piece B'. This ratchet-wheel is located within the rim d , and upon its side is secured a flanged wheel E', the rim of which is marked with the numerals "1" to "10." A pawl e' , which is journaled upon a stud in the side B', engages the ratchet-wheel E and prevents its backward rotation. A pin d' projects inwardly from the rim d of wheel D, which engages a tooth of the ratchet-wheel E at each revolution of the wheel D, and turns wheel E one-tenth of a revolution before it escapes from the tooth of the ratchet as the rim d is carried around.

In front of the door is a vertical plate A³, upon which is prominently marked a number corresponding to the amount of the purchase made. Assume in the present case this to be "5," as shown exposed in Fig. 1 and covered by the shutter or plate F, as seen in Fig. 2. It is the intention to have these numerals all covered until a sale is made; and when the amount of the sale is received the salesman draws down the shutter or plate F, as seen in Fig. 1, indicating that the amount of the purchase was five cents. The drawing down of the plate F turns the register d one-twentieth of a revolution, and exposes through the opening a the proper figure on the registering-rim. The opening of the drawer again returns the shutter to the closed position.

I will now describe the means by which these ends are attained. The plate or shutter F is fixed upon one end of an arm f , which is pivoted some distance from its opposite

end upon a rod f' , which passes through the sides $B B'$ and through the arm. To the end of the arm f is loosely pivoted a pawl c^2 , the detent of which engages the teeth of the ratchet-wheel C , and upon the same pivot-pin is hung the angle lever or trigger G , the short arm g of which is hooked and extends under the rod f' . Now it will be seen that when the arm f and plate F are thrown down, as shown in dotted line, Fig. 2, and full line, Figs. 3 and 4, the ratchet-wheel will be revolved one-twentieth of a revolution and the long arm of the lever G carried back. By pulling the drawer open a rod a' , extending entirely across the drawer will, as the drawer is drawn out, throw the shutter F up to the vertical position, the rod f' acting as the fulcrum. While the shutters are in the vertical position the long arm of the trigger or lever G is free to be swung back and forth by the rod a' , as the drawer is drawn out or closed, without affecting them. There may be any number of these registering devices desired. I have shown in Fig. 1 five, to wit: for five, ten, fifteen, twenty, and twenty-five cents.

I will now describe the means by which the ratchet-wheels are prevented from being turned backward and a signal sounded every time one of the shutters is thrown down. H is a shaft which passes through all of the sides $B B'$. It has securely fixed upon it pawls h opposite each of the ratchet-wheels C . These pawls are held against the teeth of the ratchets by a coiled spring h' , one end of which is secured in the shaft and the other in one of the sides B or B' . I is a bell and i a knocker, held at one end of a spring, the opposite end of which is coiled around and secured to the shaft H . There need be only one signal, for it will be seen that when any one of the ratchets C of the register is revolved by its pawl c^2 the shaft H will be partially turned by the pawl h riding over the high part of the tooth, and when it snaps back the shaft will suddenly return to its normal position, and in doing so will bring the knocker down upon the bell. There are no blank spaces upon the register-wheels; but when the registers are set at the beginning of a day, or any time after the record is taken, the highest number upon all of the wheels is brought to the highest position or under the openings a in the door and shutters $J J'$, which are pivoted upon the edges of the side pieces $B B'$, closed over the highest numbers of both register-wheels. Pins j are secured in the wheels at the top of the lowest numbers upon the tooth-numbered rims for the purpose of swinging the shutters $J J'$ (which, when in the closed position, are under the openings a) around and exposing the first or lowest number upon the register-wheels, as seen clearly in Fig. 5. The exposed faces of each of the shutters F , when covering the numbers, are marked with num-

bers corresponding with the numbers covered by them. They should be prominent enough for the salesman to see when near the register, but not so plainly visible as to detract from the prominence of the numbers exposed by throwing down any one of the shutters. At the close of the day's business the amount of cash sales upon each of the register-wheels is taken separately and the sum of all found. This amount should correspond with the amount of cash in the drawer. By this means the number of sales of each kind and the total number of all sales may be readily determined, as well as the total amount received.

It will be seen that much of the complicated mechanism employed in the ordinary cash-registers is dispensed with, and it is also obvious that many mere mechanical changes may be made in some of the parts, and that some of the features of my invention may be used separately from others.

What I claim is—

1. In a registering device of the character described, the combination of the registering-wheels, the ratchet-wheels secured to them, the exposed stationary number-plate, the pivoted arm carrying a plate or shutter to cover or expose the number on said plate, the rod upon which said arm is pivoted, and the pawl pivoted upon the end of said arm opposite the shutter and engaging the teeth of the ratchet-wheel which carries the register, whereby the register is partially revolved by drawing down the shutter to expose the number on the number-plate, substantially as shown and described.

2. The combination, substantially as hereinbefore set forth, of the case, the exposed number-plate A^3 above it, the cash-drawer in the lower part of the case, a rod crossing the drawer, a series of registering-wheels within the case, ratchet-wheels secured to said registering-wheels, pivoted arms carrying shutters at one end to cover the numbers upon the number-plate when thrown up, and pawls at the opposite end to actuate the registers when the shutter is thrown down, the pawls pivoted to the shutter-arm and engaging the teeth of the registering-wheel ratchets, the rods upon which the shutter-arms are pivoted, the angle-lever also pivoted to the shutter-arms and having its long arm projecting in the path of the cross-bar in the drawer, and its short arm projecting under the rod upon which the shutter-arm is pivoted, whereby a registering-wheel is turned by throwing down the shutter-arm, and the shutter automatically returned to cover its number by drawing out the drawer.

3. The combination of the ratchet-wheels, the registering-wheels secured thereto, the pivoted shutter, the number-plate corresponding to the numbers on the register-wheels, pivoted shutters to cover or expose the numbers on said plate, pawls engaging the

teeth on the ratchet-wheels and carried by the pivoted shutters to turn the ratchet and register-wheel when the shutters are turned down, a transverse shaft carrying pawls rigidly secured to it and engaging the teeth of the ratchet-wheels to prevent their backward movement, a spring to hold the pawls in contact with the ratchet-wheels, a bell, and a 5
knocker secured to the pawl-shaft to sound an alarm when the ratchets are turned, substantially as shown and described. 10

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Witnesses:

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